THE SOURCE

NEWSLETTER OF THE NHDES DRINKING WATER SOURCE PROTECTION PROGRAM
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SUMMER 2005

Forming Source Protection Committees that Succeed!

By Jennifer Palmiotto, Source Water Protection Specialist, NH Rural Water Association

For source water protection plans to be most effective, recommendations and implementation must be locally driven. To enable this local participation, the creation of a local source water protection committee is a key to success. In every reference that describes the steps to protecting source water, the first step highlighted is to "organize a community planning team." This article describes the objectives of this committee and how to go about creating a successful team.

One of the first steps is to identify a willing local "host" to sponsor the project. For example, New Hampshire Rural Water Association worked with a town planner in the Town of Meredith to develop a source protection project for the Lake Waukewan Watershed. Together with this local host, NHRWA planned a workshop to introduce the watershed community to the proposed source water project, provided information about the importance of source water protection, and sought volunteers to serve on a local source protection committee. Following the workshop, interested and dedicated volunteers naturally emerged. The Meredith Board of Selectmen officially appointed these volunteers to serve on a committee.

Members of the protection committee should include members of town boards, water suppliers, and representatives from businesses and the community. The goal is to ensure that this committee represents a diversity of interests and includes people with the skills and influence necessary for crafting practical recommendations that will carry weight in the community. Committee size should be approximately ten members and it should meet at least monthly.

After a committee is formed, the first several meetings should be spent orienting the committee. This includes reviewing committee goals and objectives, familiarizing the committee with the project area by taking a tour of source protection areas and water supplies, and providing background information on source protection. During this time the committee begins to shape its feeling of purpose and commitment.

Here are some other tips to help make the committee a success:

- Get off to a fast and constructive start.
- Establish clear objectives and goals.
- Determine a completion date.
- Encourage the committee to listen and respond constructively to views expressed by others.
- Hold regular meetings.
- Keep minutes.
- Maintain a strong community presence through mailings, newspaper articles, and an internet site.

And lastly, the more involvement committee members have in implementing their recommendations the more likely the plan is to get implemented. For those people outside the committee who will have to carry the ball, it is critical to involve them in the process early and often.

For more information on forming source protection committees, please contact Jennifer Palmiotto at New Hampshire Rural Water Association at (603)371-0557 or jpalmiotto@nhruralwater.org.

Water Conservation Rules Passed!

On Saturday, May 14 the New Hampshire Water Conservation Rules (Env-Ws 390) went into effect! To view the rules please visit *www.des.nh.gov/h2o_conservation.htm* or contact Brandon Kernen at (603) 271-0660 or bkernen@des.state.nh.us.

Spotlight on ... Belmont

By Candace Daigle, Belmont Town Planner

What groundwater protection alternatives are available when voters do not support an aquifer protection ordinance? Where do community planners go from there? How can a community protect natural resources and yet provide for quality, balanced growth?

For Belmont, where 35 percent of the land is underlain by stratified-drift aquifer, these are extremely important questions. Especially when the coverage area was heavily developed prior to "aquifer awareness" and includes the entire village, four major state transportation routes, and much of the community's commercially and industrially zoned property.

In December of 2003, the Drinking Water Project Report of the Belmont-Northfield-Tilton Water Resources Committee was finalized. The project was a collaborative effort of three communities facilitated by the Lakes Region Planning Commission with funds from a Source Water Protection Grant from the DES. Its goal was to assist in long-term planning by providing accurate, in-depth information regarding drinking water resources specifically relating to a stratified-drift aquifer shared by the three communities.

In considering a draft aquifer ordinance, the Planning Board continues to try to reconcile conflicts dealing specifically with lot coverage limits and permitted uses. A petitioned ordinance placed before the voters in 2005 did not pass.

Although the Planning Board has yet to achieve an acceptable balance between aquifer protection and economic development, it has taken other steps to assure quality development while increasing the level of water protection. The Board has adopted minimum standards in the site plan review regulations for development occurring within the aquifer zone. These new standards require applicants applying for site plan approval to:

- Demonstrate in the application that the development will not cause adverse short or long term impacts to water quality and availability.
- Warranty in the Quality Assurance Program that measures are engineered, instituted and maintained for the protection of the aquifer.
- Implement standards in design and construction to insure that the use will not detrimentally affect the quality of the groundwater contained in the aquifer by directly contributing to pollution or by increasing the long-term susceptibility of the aquifer to potential pollutants.

Are other options available to allow development in a responsible manner by providing opportunity as well as protection? The Board has begun by again joining with Tilton, Northfield and LRPC to develop a best management practices manual for development occurring within the aquifer. This manual will define specific methods for design, construction and operation to allow development while providing a high level of protection to the aquifer.

In these efforts the Planning Board continues to address the complex and often conflicting needs of the community to achieve a goal of balanced growth for Belmont's future.

Source Protection Grant Applications!

Applications for the 2006 Local Source Water Protection Grants will be mailed out to water systems, regional planning commissions and consultants later this summer and will be due November 30, 2005. Please visit www.des.nh.gov/dwspp/grants.htm for more information or contact Johnna McKenna at (603) 271-7017.

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Water System Security Update

DES's Administrative Rule Env-Ws 360.14 requires community systems to review their emergency plan annually and update the plan as necessary to reflect current information. Systems must submit their most recent plan to DES every six years. The next submittal date to DES is March 2009, but systems that wish to send updates to DES before then are encouraged to do so. EPA and DES recommend that water systems regularly review and update their vulnerability assessments as well as emergency plans.

EPA has developed many helpful tools for water systems regarding security and emergency planning. One of those tools is the *Response Protocol Toolbox: Planning for and Responding to Contamination Threats to Drinking Water Systems*. The *Toolbox* includes modules designed to help the water sector effectively and appropriately respond to intentional contamination threats and incidents. EPA produced the *Toolbox*, building on the experience and expertise of several drinking water utilities. The *Toolbox* will be of value to drinking water utilities, laboratories, emergency responders, state drinking water programs, technical assistance providers and public health and law enforcement officials. Please note that the *Toolbox* contains guidance that may be adopted voluntarily. The *Response Protocol Toolbox: Response Guidelines* is also available, which is an action oriented document to assist officials during the management of an ongoing contamination threat or incident. The *Response Guidelines* apply the same principles contained in the *Response Protocol Toolbox* during an actual incident. The *Response Guidelines* have been developed to provide an easy to use document for field and crisis conditions.

Another tool EPA developed is a tabletop exercise CD. The CD contains materials to assist first responders to successfully plan and conduct tabletop exercises that represent several emergency response scenarios. Users can adapt the materials for their own needs. The CD also contains guidance developed by the EPA that emergency planners can use when developing their emergency plans and procedures. Hard copies of the CD can be ordered from the National Service Center for Environmental Publications by calling 800-490-9198 or by sending an email to ncepimal@one.net. Those wishing to view the materials first may visit www.watersc.org or *www.waterisac.org* and then click on the EPA logo.

Also, EPA and New England Water Works conducted community based workshops in Keene, Laconia and Dover in late May and early June. These workshops brought together water systems and local first responders and included a tabletop exercise. More of these workshops may be available in different areas throughout the state later this year.

For more information about water system security visit *www.des.nh.gov/wseb/EmergencyPlanning/default.asp* or contact Johnna McKenna at (603) 271-7017.

Source Water Protection Workshop Packs the House!

Attracted by a rich variety of topics, over 150 people attended DES's 4th annual Source Water Protection workshop in Concord on May 12. The workshop provided up-to-date information on source water treatment and protection practices for both community development officials and water supply managers. The program opened with a discussion of the source water protection implications of New Hampshire's unprecedented rates of land use change and population growth. Next, attendees heard updates from New Hampshire's leading researchers on two topics pertinent to source water protection in urbanizing areas: stormwater management and MtBE in groundwater.

To view presentations from the 2005 workshop, visit
www.des.nh.gov/dwspp/workshops.htm

Joseph Ayotte, a geologist with the U.S.Geological Survey (USGS), discussed the results of a USGS study published in 2004 detailing the occurrence of MtBE (methyl *tert*-butyl ether) in public and private wells in Rockingham County. The study's results indicate that detectable amounts of MtBE can be found in 40 percent of public wells and 21 percent of the private wells sampled in the county. Dr. Robert Roseen, director of UNH's Center for Stormwater Technology Evaluation and Verification (CSTEV), followed with an overview of what CSTEV is doing in terms of evaluating the performance of stormwater treatments systems. The "take home" message from Dr. Roseen is that many current treatment systems are doing little to remove many common pollutants from stormwater and existing systems may in fact be doing little more than holding some pollutants in place until the next large rainfall event.

Workshop continued on pg. 4

Wellhead Protection Pays, Says AwwaRF Study

A recent study reveals that local wellhead protection programs (WHPPs) not only save money for water systems, but they do *not* deflate property values or interfere with business and economic development, contrary to popular belief. *Demonstrating Benefits of Wellhead Protection Programs*, published in 2004 by American Water Works Association (AWWA) and Awwa Research Foundation, is the result of a study designed to identify the key elements and costs of local WHPPs and to compile information on their benefits. The study employed a literature search, a survey of state source water protection coordinators, and nine case studies.

While the study found that the cost of local WHPPs in the case studies averaged $2.63 per person per year, 72 percent of that was for the delineation of wellhead protection areas, which has already been done for existing sources. The rest of the costs broke down as follows: potential contamination source (PCS) inventory (5%), management strategies (8%), contingency planning (3%), and public participation (11%). The case studies focused on water systems with populations ranging from 6,400 to 2.8 million and a wide variety of wellhead protection measures. (Not including the most sophisticated program, the average cost was $1.59 per person per year.) Four of the nine systems serve 13,000 or fewer people.

The benefits of WHPPs are both monetary and non-monetary. The monetary benefits are the avoided costs of treating or replacing a contaminated water supply, which in this study averaged eight times greater than the costs of WHPPs. A similar 1995 study by USEPA found that the benefit-cost ratio of WHPPs ranged from 5:1 to almost 200:1. The most prevalent non-monetary benefits appear to be reduced storage of materials posing a threat within the WHPA; restricted land uses and activities that pose a contamination threat; preservation of open space; improved working relationships among water suppliers, stakeholders, and the general public; and improved public awareness of the need for groundwater protection.

In the survey portion of the study, state administrators felt that acceptance of WHPPs by the general public is good, but landowners and business interests tend to be less accepting because of the land use restrictions imposed in some programs. But protection measures vary among programs. Most local WHPPs in New Hampshire rely on public education and best management practices rather than land use restrictions.

For more information on the study, contact DES at (603) 271-7061 or visit *www.awwarf.com/research/TopicsAndProjects*.

Workshop Continued from page 3

Participants appreciated the choice of topics offered by the workshop's two-track format in the middle of the day: one science-oriented, one for planning officials. The planning track discussed how to develop local source water protection plans and reviewed the relationship between land use risks and the regulatory options that extend source water protection. The science track focused on the use of genetic and biological data that can help determine the specific type and source of water pollution. The workshop wrapped up with a summary of structural and non-structural best management practices and potential changes to DES Site Specific Rules to improve water quality during construction of large developments.

The workshop's evaluations were widely positive and we look forward to next year's event! Please contact Pierce Rigrod at (603) 271-0688 with any comments or questions.

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